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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,796	06/19/2001	Zine-Eddine Boutaghou	169.12-0496	4390

164 7590 10/20/2005

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EXAMINER	
MILLER, BRIAN E	
ART UNIT	**PAPER NUMBER**
2652	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/884,796	BOUTAGHOU ET AL.	
	Examiner	Art Unit	
	Brian E. Miller	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8 and 27-29* is/are allowed.

6)☒ Claim(s) *3-7, 9-26, 30-35* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 3-35 are now pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

1. Claims 3, 8, 9, 19 & 22 are objected to because of the following informalities: (a) in claims 8 & 22, the phrase "the transducer basecoat portion comprises the second material" the word "also" should be inserted between "portion" and "comprises" for clarity; (b) in claims 3, 8, 19, the word "attached" should be changed appropriately because the disclosure and drawings depict this "transducer basecoat portion as *integral* with the "rear portion" and not a separate entity as claimed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 31-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 31-33 recite "the Al_2O_3" however, it is misdescriptive since claim 30, from which they depend from, includes multiple recitations of that material in different portions of the slider, and it is not readily apparent which portion applicant is referring to.

Claim Rejections - 35 USC § 102

4. Claims 3-4, 9-10, 13, 15-17, 19-20, 22-23, 25-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Lille (US 6,587,314). With respect to claims 3, 9 & 19, Lille discloses an air bearing slider, as primarily shown in FIGs. 2 & 3, including: a transducer 350 for communicating with a disc 118A; a composite wafer slider 300 with a front portion 358 composed of a first material, e.g., TiC, and a rear portion 354 composed of a second material, i.e., Si, different from the first material; the slider body having an air bearing surface 374 defined on the disc opposing face of the slider body, where the air bearing surface comprises the front portion and the rear portion (see col. 5, lines 45-47); a transducer basecoat portion 352 attached to the rear portion of the slider body containing the transducer 350; (as per claims 15 & 25) wherein the interface between the first and second materials comprises a single latitudinal plane with respect to the slider body which is perpendicular to the air bearing surface; (as per claims 4, 13 & 20) wherein the thickness of the first material is "as much as 15 times" a thickness of the second material; (as per claims 10 & 23) wherein the lapping durability of the first material is greater than the second material; (as per claims 16 & 26) wherein the latitudinal plane separates the front portion from the rear, and the front portion is composed entirely of the first material and the rear portion is composed entirely of the second material.

5. Claims 19-20, 23-26, 30-31, 33, 35 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art (AAPA), i.e., FIGs. 2A-2B. The AAPA shows a composite slider body, having a front portion 42 composed of a first material, e.g., AlTiC, a rear portion 44 composed of a second material, e.g., Al_2O_3, different from the first material; an air

bearing surface which comprises a leading ABS portion 40 formed in the front body portion; a trailing ABS portion formed in the rear portion, i.e., which includes the ABS portion on the center of the rear pad of which the basecoat 46 forms; (as per claim 20) wherein the thickness of the first material is "as much as 15 times" a thickness of the second material; (as per claim 23) wherein the lapping durability of the first material is greater than the second material; (as per claims 25-26) wherein a single latitudinal plane separates the front portion from the rear, and the front portion is composed entirely of the first material and the rear portion is composed entirely of the second material.

Claim Rejections - 35 USC § 103

6. Claims 5-7, 11-12, 14, 18, 21, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lille. For a description of Lille, see the rejection, supra. With respect to claims 11, 12, 18, Lille is expressly silent as to forming multiple sliders on one bar and subsequently cutting them to make individual sliders. Official Notice is taken that such process steps, are notoriously old and well known in this art, and providing such to Lille, would have been obvious to a skilled artisan (note also USP 5,559,051 which was incorporated by reference by Lille and includes the aforementioned steps). The motivation would have been: forming a plurality of sliders and transducers on a bar would have provided many slider assemblies in one step, thus reducing manufacturing time and increasing consistency throughout the samples, which method steps were conventionally used in this art.

With respect to the transducer portion including the second material, e.g., in this case Si, as it was well known for insulating magnetic heads, SiO_2, which includes Si, would have been readily

utilized in the transducer basecoat portion (see FIG. 2). Official Notice is taken that SiO_2 was a notoriously old and well known insulating layer in magnetic heads. The motivation would have been: SiO_2 being a well known insulating material provides proper insulation for the coil(s) and/or between pole layers as was conventionally known.

With respect to claim 30, Lille further discloses the recited "front portion" of the slider 358 and the "rear portion" of the slider including 354 and 352 which includes the transducer basecoat portion adjacent the head (see FIG. 2), such that the transducer basecoat portion is "adjacent" the rear portion and comprises alumina (Al_2O_3) layer 216 (see col. 5, lines 14-15). It is considered that the definitive "single latitudinal plane" has not been specifically set forth and the term "portion" used throughout the claim is extremely broad. Lille teaches having the front portion formed of TiC, and is silent as to also having Al therewith, however, as suggested in Lille, other materials could be used for the slider (see col. 5, lines 7-12). From this, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized AlTiC for the slider material in place of TiC. The motivation would have been: as AlTiC is a known slider material, substituting one known material for another, would have been within the knowledge of a skilled artisan and readily provided for.

Allowable Subject Matter

7. Claims 8, 27-29 are allowable over the prior art of record.

Response to Arguments

8. Applicant's arguments filed 8/3/05 have been fully considered but they are not persuasive.

A... Applicants' main assertion is that "Lille's silicon chip 354 is not a portion of a composite slider body as claimed, but rather analogous to the claimed transducer basecoat portion" The Examiner considers the use of "portions" throughout the claims, without specifically defining the "latitudinal plane" in combination with the different materials, make the claims very broad and the prior art is considered to still read on them as described, supra. It has not been specifically pointed out in the claims what defines applicant's "slider body" over the prior art's "slider body". Lille's Si chip includes an ABS portion as well as the front portion 358 (see col. 5, lines 44-47), so the Examiner considers that such an interpretation is proper and is maintained, i.e., that it would be included in the slider body.

B... It is also noted that applicant's transducer portion 44, is an integral part of the slider rear portion as described in the specification and as shown in FIGs. 5A & 5B, and it would not be accurate to define the transducer basecoat portion as being "attached". Only would the two front 66 and rear portions 68/44 could be defined as such. Appropriate changes should be made in the claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

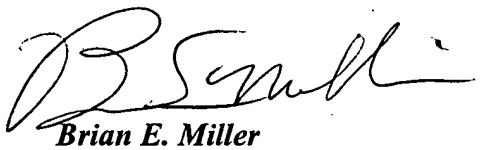
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 7:15am-4:45pm (and every other friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian E. Miller
Primary Examiner
Art Unit 2652

BEM
October 17, 2005